

CLAIMS:

1. A method of opening a vehicle door in a doorway of a vehicle body, the method comprising:
 - 5 rotating such vehicle door in a horizontal plane of motion until such vehicle door substantially clears such vehicle body; and then rotating such vehicle door in a vertical plane of motion until such vehicle door substantially clears such door way.
- 10 2. The method of claim 1, further comprising: providing a chassis mounting plate securely fastened to such vehicle frame; providing a swingarm securely fastened to such vehicle door; providing a bi-directional rotation mechanism allowing motion of the door in a first horizontal plane and a second vertical plane.
- 15 3. The method of claim 2, wherein the bi-directional rotation mechanism prevents the motion of the door in the second vertical plane when the door has not fully completed motion in the first horizontal plane.
- 20 4. A method of retrofitting a vehicle door hinge connecting a vehicle door to a vehicle frame, comprising the steps of:
 - a) removing the vehicle door hinge,

- b) fastening a chassis mounting plate securely to such vehicle frame;
- c) fastening a swingarm securely to such vehicle door;
- d) installing a bi-directional rotation mechanism connecting the chassis mounting plate and the swingarm, the bi-directional rotation mechanism allowing motion of the door in a first horizontal plane and a second vertical plane.

5

5. The method of claim 4, wherein the bi-directional rotation mechanism prevents the motion of the door in the second vertical plane when the door has not fully completed motion in the first horizontal plane.

10

6. The method of claim 5, wherein the bi-directional rotation mechanism further comprises:
at least one sag adjustment device preventing vertical sag of the door during the first horizontal plane of motion.